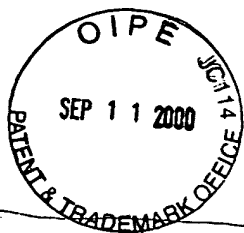


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SEP 19 2000

TECH CENTER 1600/2000



SEQUENCE LISTING

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TECH CENTER 1600/2000

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Nancy A. Thornberry

<120> AUTOANTIGENIC FRAGMENTS, METHODS AND
ASSAYS

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 Gly Gln Gln Ile Leu Lys Gln Pro Val Ser Glu Arg Leu Asp Phe Val
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 Cys Ser Phe Leu Gln Lys Asn Arg Lys His Pro Ser Ser Pro Glu Cys
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 Ala Leu Gln Asp Lys Lys Cys Leu Glu Glu Lys Asn Glu Ile Leu Gln
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 Pro Pro Gln Glu Lys Gly Glu Val Leu Gly Asp Val Leu Gln Leu Glu
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 Gln Ala Arg Val Glu Met Leu Glu Thr Glu Arg Gly Gln Gln Glu Ala
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 Lys Leu Leu Ala Glu Arg Gly His Phe Glu Glu Glu Lys Gln Gln Leu
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 Ser Ser Leu Ile Thr Asp Leu Gln Ser Ser Ile Ser Asn Leu Ser Gln
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Glu	Arg	Lys	Glu	Leu	Glu	Glu	Glu	Arg	Ala	Gly	Arg	Lys	Gly	Leu	Glu
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Ser	Glu	Cys	Glu	Gln	Leu	Val	Lys	Glu	Val	Ala	Ala	Trp	Arg	Asp	Gly
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 1925 1930 1935
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 1940 1945 1950
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 1970 1975 1980

Gly Thr Pro Glu Ser Lys Lys Ala Thr Ser Cys Phe Pro Arg Pro Met
 1985 1990 1995 2000
 Thr Pro Arg Asp Arg His Glu Gly Arg Lys Gln Ser Thr Thr Glu Ala
 2005 2010 2015
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 260 265 270
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 Thr Met Arg Leu His Glu Thr Leu Lys Gln Cys Gln Asp Leu Lys Thr
 290 295 300
 Glu Lys Ser Gln Met Asp Arg Lys Ile Asn Gln Leu Ser Glu Glu Asn

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 1940 1945 1950
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 Ala Val Leu Ala Leu Gln Thr Ser Leu Val Phe Ser Arg Asp Phe Gly
 50 55 60
 Leu Leu Val Phe Val Arg Lys Ser Leu Asn Ser Ile Glu Phe Arg Glu

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Val	Ala	Ser	Val	Leu	Leu	Tyr	Leu	Asp	Thr	Val	Pro	Glu	Val
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Cys	Glu	Pro	Ala	Ser	Ile	Gly	Phe	Asn	Ile	Gly	Asp	Val	Gln	Val	Met
1380					1385					1390					
Ala	His	Leu	Pro	Asp	Val	Cys	Val	Asn	Leu	Met	Lys	Ala	Leu	Lys	Met
1395					1400					1405					
Ser	Pro	Tyr	Lys	Asp	Ile	Leu	Glu	Thr	His	Leu	Arg	Glu	Lys	Ile	Thr
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Ala	Gln	Ser	Ile	Glu	Glu	Leu	Cys	Ala	Val	Asn	Leu	Tyr	Gly	Pro	Asp
1425					1430					1435					
Ala	Gln	Val	Asp	Arg	Ser	Arg	Leu	Ala	Ala	Val	Val	Ser	Ala	Cys	Lys
1445					1450					1455					
Gln	Leu	His	Arg	Ala	Gly	Leu	Leu	His	Asn	Ile	Leu	Pro	Ser	Gln	Ser
1460					1465					1470					
Thr	Asp	Leu	His	His	Ser	Val	Gly	Thr	Glu	Leu	Leu	Ser	Leu	Val	Tyr
1475					1480					1485					
Lys	Gly	Ile	Ala	Pro	Gly	Asp	Glu	Arg	Gln	Cys	Leu	Pro	Ser	Leu	Asp
1490					1495					1500					
Leu	Ser	Cys	Lys	Gln	Leu	Ala	Ser	Gly	Leu	Leu	Glu	Leu	Ala	Phe	Ala
1505					1510					1515					
Phe	Gly	Gly	Leu	Cys	Glu	Arg	Leu	Val	Ser	Leu	Leu	Leu	Asn	Pro	Ala
1525					1530					1535					
Val	Leu	Ser	Thr	Ala	Ser	Leu	Gly	Ser	Ser	Gln	Gly	Ser	Val	Ile	His
1540					1545					1550					
Phe	Ser	His	Gly	Glu	Tyr	Phe	Tyr	Ser	Leu	Phe	Ser	Glu	Thr	Ile	Asn

1555	1560	1565
Thr Glu Leu Leu Lys Asn Leu Asp Leu Ala Val Leu Glu Leu Met Gln		
1570	1575	1580
Ser Ser Val Asp Asn Thr Lys Met Val Ser Ala Val Leu Asn Gly Met		
1585	1590	1595
Leu Asp Gln Ser Phe Arg Glu Arg Ala Asn Gln Lys His Gln Gly Leu		1600
1605	1610	1615
Lys Leu Ala Thr Thr Ile Leu Gln His Trp Lys Lys Cys Asp Ser Trp		
1620	1625	1630
Trp Ala Lys Asp Ser Pro Leu Glu Thr Lys Met Ala Val Leu Ala Leu		
1635	1640	1645
Leu Ala Lys Ile Leu Gln Ile Asp Ser Ser Val Ser Phe Asn Thr Ser		
1650	1655	1660
His Gly Ser Phe Pro Glu Val Phe Thr Thr Tyr Ile Ser Leu Leu Ala		
1665	1670	1675
Asp Thr Lys Leu Asp Leu His Leu Lys Gly Gln Ala Val Thr Leu Leu		1680
1685	1690	1695
Pro Phe Phe Thr Ser Leu Thr Gly Gly Ser Leu Glu Glu Leu Arg Arg		
1700	1705	1710
Val Leu Glu Gln Leu Ile Val Ala His Phe Pro Met Gln Ser Arg Glu		
1715	1720	1725
Phe Pro Pro Gly Thr Pro Arg Phe Asn Asn Tyr Val Asp Cys Met Lys		
1730	1735	1740
Lys Phe Leu Asp Ala Leu Glu Leu Ser Gln Ser Pro Met Leu Leu Glu		
1745	1750	1755
Leu Met Thr Glu Val Leu Cys Arg Glu Gln His Val Met Glu Glu		1760
1765	1770	1775
Leu Phe Gln Ser Ser Phe Arg Arg Ile Ala Arg Arg Gly Ser Cys Val		
1780	1785	1790
Thr Gln Val Gly Leu Leu Glu Ser Val Tyr Glu Met Phe Arg Lys Asp		
1795	1800	1805
Asp Pro Arg Leu Ser Phe Thr Arg Gln Ser Phe Val Asp Arg Ser Leu		
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Leu Thr Leu Leu Trp His Cys Ser Leu Asp Ala Leu Arg Glu Phe Phe		
1825	1830	1835
Ser Thr Ile Val Val Asp Ala Ile Asp Val Leu Lys Ser Arg Phe Thr		1840
1845	1850	1855
Lys Leu Asn Glu Ser Thr Phe Asp Thr Gln Ile Thr Lys Lys Met Gly		
1860	1865	1870
Tyr Tyr Lys Ile Leu Asp Val Met Tyr Ser Arg Leu Pro Lys Asp Asp		
1875	1880	1885
Val His Ala Lys Glu Ser Lys Ile Asn Gln Val Phe His Gly Ser Cys		
1890	1895	1900
Ile Thr Glu Gly Asn Glu Leu Thr Lys Thr Leu Ile Lys Leu Cys Tyr		
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Asp Ala Phe Thr Glu Asn Met Ala Gly Glu Asn Gln Leu Leu Glu Arg		
1925	1930	1935
Arg Arg Leu Tyr His Cys Ala Ala Tyr Asn Cys Ala Ile Ser Val Ile		
1940	1945	1950
Cys Cys Val Phe Asn Glu Leu Lys Phe Tyr Gln Gly Phe Leu Phe Ser		
1955	1960	1965
Glu Lys Pro Glu Lys Asn Leu Leu Ile Phe Glu Asn Leu Ile Asp Leu		
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Lys Arg Arg Tyr Asn Phe Pro Val Glu Val Glu Val Pro Met Glu Arg		
1985	1990	1995
Lys Lys Lys Tyr Ile Glu Ile Arg Lys Glu Ala Arg Glu Ala Ala Asn		
2005	2010	2015
Gly Asp Ser Asp Gly Pro Ser Tyr Met Ser Ser Leu Ser Tyr Leu Ala		
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Asp Ser Thr Leu Ser Glu Glu Met Ser Gln Phe Asp Phe Ser Thr Gly		
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Val Gln Ser Tyr Ser Tyr Ser Ser Gln Asp Pro Arg Pro Ala Thr Gly		

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Arg Phe Arg Arg Arg	Glu Gln Arg Asp Pro	Thr Val His Asp Asp Val
2065	2070	2075
Leu Glu Leu Glu Met	Asp Glu Leu Asn Arg	His Glu Cys Met Ala Pro
2085	2090	2095
Leu Thr Ala Leu Val	Lys His Met His Arg	Ser Leu Gly Pro Pro Gln
2100	2105	2110
Gly Glu Glu Asp Ser	Val Pro Arg Asp Leu	Pro Ser Trp Met Lys Phe
2115	2120	2125
Leu His Gly Lys Leu	Gly Asn Pro Ile Val	Pro Leu Asn Ile Arg Leu
2130	2135	2140
Phe Leu Ala Lys Leu	Val Ile Asn Thr Glu	Glu Val Phe Arg Pro Tyr
2145	2150	2155
Ala Lys His Trp Leu	Ser Pro Leu Leu Gln	Leu Ala Ala Ser Glu Asn
2165	2170	2175
Asn Gly Gly Glu Gly	Ile His Tyr Met Val	Val Glu Ile Val Ala Thr
2180	2185	2190
Ile Leu Ser Trp Thr	Gly Leu Ala Thr Pro	Thr Gly Val Pro Lys Asp
2195	2200	2205
Glu Val Leu Ala Asn	Arg Leu Leu Asn Phe	Leu Met Lys His Val Phe
2210	2215	2220
His Pro Lys Arg Ala	Val Phe Arg His Asn	Leu Glu Ile Ile Lys Thr
2225	2230	2235
Leu Val Glu Cys Trp	Lys Asp Cys Leu Ser	Ile Pro Tyr Arg Leu Ile
2245	2250	2255
Phe Glu Lys Phe Ser	Gly Lys Asp Pro Asn	Ser Lys Asp Asn Ser Val
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Gly Ile Gln Leu Leu	Gly Ile Val Met Ala	Asn Asp Leu Pro Pro Tyr
2275	2280	2285
Asp Pro Gln Cys Gly	Ile Gln Ser Ser Glu	Tyr Phe Gln Ala Leu Val
2290	2295	2300
Asn Asn Met Ser Phe	Val Arg Tyr Lys Glu	Val Tyr Ala Ala Ala Ala
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Glu Val Leu Gly Leu	Ile Leu Arg Tyr Val	Met Glu Arg Lys Asn Ile
2325	2330	2335
Leu Glu Glu Ser Leu	Cys Glu Leu Val Ala	Lys Gln Leu Lys Gln His
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Gln Asn Thr Met Glu	Asp Lys Phe Ile Val	Cys Leu Asn Lys Val Thr
2355	2360	2365
Lys Ser Phe Pro Pro	Leu Ala Asp Arg Phe	Met Asn Ala Val Phe Phe
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Leu Leu Pro Lys Phe	His Gly Val Leu Lys	Thr Leu Cys Leu Glu Val
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Val Leu Cys Arg Val	Glu Gly Met Thr Glu	Leu Tyr Phe Gln Leu Lys
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Ser Lys Asp Phe Val	Gln Val Met Arg His	Arg Asp Glu Arg Gln Lys
2420	2425	2430
Val Cys Leu Asp Ile	Ile Tyr Lys Met Met	Pro Lys Leu Lys Pro Val
2435	2440	2445
Glu Leu Arg Glu Leu	Leu Asn Pro Val Val	Glu Phe Val Ser His Pro
2450	2455	2460
Ser Thr Thr Cys Arg	Glu Gln Met Tyr Asn	Ile Leu Met Trp Ile His
2465	2470	2475
Asp Asn Tyr Arg Asp	Pro Glu Ser Glu Thr	Asp Asn Asp Ser Gln Glu
2485	2490	2495
Ile Phe Lys Leu Ala	Lys Asp Val Leu Ile	Gln Gly Leu Ile Asp Glu
2500	2505	2510
Asn Pro Gly Leu Gln	Leu Ile Ile Arg Asn	Phe Trp Ser His Glu Thr
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Arg Leu Pro Ser Asn	Thr Leu Asp Arg Leu	Leu Ala Leu Asn Ser Leu
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Tyr Ser Pro Lys Ile	Glu Val His Phe Leu	Ser Leu Ala Thr Asn Phe

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Leu Leu Glu Met Thr Ser Met Ser Pro Asp Tyr Pro Asn Pro Met Phe						
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Glu His Pro Leu Ser Glu Cys Glu Phe Gln Glu Tyr Thr Ile Asp Ser						
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Asp Trp Arg Phe Arg Ser Thr Val Leu Thr Pro Met Phe Val Glu Thr						
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Gln Ala Ser Gln Gly Thr Leu Gln Thr Arg Thr Gln Glu Gly Ser Leu						
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Ser Ala Arg Trp Pro Val Ala Gly Gln Ile Arg Ala Thr Gln Gln Gln						
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His Asp Phe Thr Leu Thr Gln Thr Ala Asp Gly Arg Ser Ser Phe Asp						
	2645			2650		2655
Trp Leu Thr Gly Ser Ser Thr Asp Pro Leu Val Asp His Thr Ser Pro						
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Ser Ser Asp Ser Leu Leu Phe Ala His Lys Arg Ser Glu Arg Leu Gln						
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Arg Ala Pro Leu Lys Ser Val Gly Pro Asp Phe Gly Lys Lys Arg Leu						
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Gly Leu Pro Gly Asp Glu Val Asp Asn Lys Val Lys Gly Ala Ala Gly						
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Arg Thr Asp Leu Leu Arg Leu Arg Arg Arg Phe Met Arg Asp Gln Glu						
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Lys Leu Ser Leu Met Tyr Ala Arg Lys Gly Val Ala Glu Gln Lys Arg						
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Glu Lys Glu Ile Lys Ser Glu Leu Lys Met Lys Gln Asp Ala Gln Val						
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Val Leu Tyr Arg Ser Tyr Arg His Gly Asp Leu Pro Asp Ile Gln Ile						
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Lys His Ser Ser Leu Ile Thr Pro Leu Gln Ala Val Ala Gln Arg Asp						
	2785			2790		2795
Pro Ile Ile Ala Lys Gln Leu Phe Ser Ser Leu Phe Ser Gly Ile Leu						
	2805			2810		2815
Lys Glu Met Asp Lys Phe Lys Thr Leu Ser Glu Lys Asn Asn Ile Thr						
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Gln Lys Leu Leu Gln Asp Phe Asn Arg Phe Leu Asn Thr Thr Phe Ser						
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Phe Phe Pro Pro Phe Val Ser Cys Ile Gln Asp Ile Ser Cys Gln His						
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Ala Ala Leu Leu Ser Leu Asp Pro Ala Ala Val Ser Ala Gly Cys Leu						
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Ala Ser Leu Gln Gln Pro Val Gly Ile Arg Leu Leu Glu Glu Ala Leu						
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Leu Arg Leu Leu Pro Ala Glu Leu Pro Ala Lys Arg Val Arg Gly Lys						
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Ala Arg Leu Pro Pro Asp Val Leu Arg Trp Val Glu Leu Ala Lys Leu						
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Tyr Arg Ser Ile Gly Glu Tyr Asp Val Leu Arg Gly Ile Phe Thr Ser						
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Glu Ile Gly Thr Lys Gln Ile Thr Gln Ser Ala Leu Leu Ala Glu Ala						
	2945			2950		2955
Arg Ser Asp Tyr Ser Glu Ala Ala Lys Gln Tyr Asp Glu Ala Leu Asn						
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Lys Gln Asp Trp Val Asp Gly Glu Pro Thr Glu Ala Glu Lys Asp Phe						
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Trp Glu Leu Ala Ser Leu Asp Cys Tyr Asn His Leu Ala Glu Trp Lys						
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Ser Leu Glu Tyr Cys Ser Thr Ala Ser Ile Asp Ser Glu Asn Pro Pro						
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Asp Leu Asn Lys Ile Trp Ser Glu Pro Phe Tyr Gln Glu Thr Tyr Leu						
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Pro Tyr Met Ile Arg Ser Lys Leu Lys Leu Leu Leu Gln Gly Glu Ala						

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Gln	Lys	Ala	Ile	Leu	Glu	Leu	His	Tyr	Ser	Gln	Glu	Leu	Ser	Leu	Leu				
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Tyr	Leu	Leu	Gln	Asp	Asp	Val	Asp	Arg	Ala	Lys	Tyr	Tyr	Ile	Gln	Asn				
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Gly	Ile	Gln	Ser	Phe	Met	Gln	Asn	Tyr	Ser	Ser	Ile	Asp	Val	Leu	Leu				
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His	Gln	Ser	Arg	Leu	Thr	Lys	Leu	Gln	Ser	Val	Gln	Ala	Leu	Thr	Glu				
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Ile	Gln	Glu	Phe	Ile	Ser	Phe	Ile	Ser	Lys	Gln	Gly	Asn	Leu	Ser	Ser				
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Gln	Val	Pro	Leu	Lys	Arg	Leu	Leu	Asn	Thr	Trp	Thr	Asn	Arg	Tyr	Pro				
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Asp	Ala	Lys	Met	Asp	Pro	Met	Asn	Ile	Trp	Asp	Asp	Ile	Ile	Thr	Asn				
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Arg	Cys	Phe	Phe	Leu	Ser	Lys	Ile	Glu	Glu	Lys	Leu	Thr	Pro	Leu	Pro				
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Cys	Lys	Phe	Ser	Met	Lys	Met	Lys	Met	Ile	Asp	Ser	Ala	Arg	Lys	Gln				
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Asp Pro Asn Ile Leu Gly	Arg Thr Trp Glu Gly	Trp Glu Pro Trp Met
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<400> 35

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			20					25					30		
Leu	Arg	Met	Ala	Ile	Met	Val	Gln	Ser	Pro	Met	Phe	Asp	Gly	Lys	Val
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Pro	His	Trp	Tyr	His	Phe	Ser	Cys	Phe	Trp	Lys	Val	Gly	His	Ser	Ile
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Arg	His	Pro	Asp	Val	Glu	Val	Asp	Gly	Phe	Ser	Glu	Leu	Arg	Trp	Asp
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Asp	Gln	Gln	Lys	Val	Lys	Lys	Thr	Ala	Glu	Ala	Gly	Gly	Val	Thr	Gly
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Lys	Gly	Gln	Asp	Gly	Ile	Gly	Ser	Lys	Ala	Glu	Lys	Thr	Leu	Gly	Asp
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Phe	Ala	Ala	Glu	Tyr	Ala	Lys	Ser	Asn	Arg	Ser	Thr	Cys	Lys	Gly	Cys
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Met	Glu	Lys	Ile	Glu	Lys	Gly	Gln	Val	Arg	Leu	Ser	Lys	Lys	Met	Val
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Asp	Pro	Glu	Lys	Pro	Gln	Leu	Gly	Met	Ile	Asp	Arg	Trp	Tyr	His	Pro
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Gly	Cys	Phe	Val	Lys	Asn	Arg	Glu	Glu	Leu	Gly	Phe	Arg	Pro	Glu	Tyr
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Ser	Ala	Ser	Gln	Leu	Lys	Gly	Phe	Ser	Leu	Leu	Ala	Thr	Glu	Asp	Lys
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Lys	Gly	Asp	Glu	Val	Asp	Gly	Val	Asp	Glu	Val	Ala	Lys	Lys	Lys	Ser
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Lys	Lys	Glu	Lys	Asp	Lys	Asp	Ser	Lys	Leu	Glu	Lys	Ala	Leu	Lys	Ala
225				230						235					240
Gln	Asn	Asp	Leu	Ile	Trp	Asn	Ile	Lys	Asp	Glu	Leu	Lys	Lys	Val	Cys
			245						250					255	
Ser	Thr	Asn	Asp	Leu	Lys	Glu	Leu	Leu	Ile	Phe	Asn	Lys	Gln	Gln	Val
			260					265					270		
Pro	Ser	Gly	Glu	Ser	Ala	Ile	Leu	Asp	Arg	Val	Ala	Asp	Gly	Met	Val
		275					280					285			
Phe	Gly	Ala	Leu	Leu	Pro	Cys	Glu	Glu	Cys	Ser	Gly	Gln	Leu	Val	Phe
	290					295					300				
Lys	Ser	Asp	Ala	Tyr	Tyr	Cys	Thr	Gly	Asp	Val	Thr	Ala	Trp	Thr	Lys
305					310					315					320
Cys	Met	Val	Lys	Thr	Gln	Thr	Pro	Asn	Arg	Lys	Glu	Trp	Val	Thr	Pro
				325					330					335	
Lys	Glu	Phe	Arg	Glu	Ile	Ser	Tyr	Leu	Lys	Lys	Leu	Lys	Val	Lys	Lys
			340					345					350		
Gln	Asp	Arg	Ile	Phe	Pro	Pro	Glu	Thr	Ser	Ala	Ser	Val	Ala	Ala	Thr
		355					360					365			
Pro	Pro	Pro	Ser	Thr	Ala	Ser	Ala	Pro	Ala	Ala	Val	Asn	Ser	Ser	Ala
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Leu	Ser	Arg	Asn	Lys	Asp	Glu	Val	Lys	Ala	Met	Ile	Glu	Lys	Leu	Gly
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Gly	Lys	Leu	Thr	Gly	Thr	Ala	Asn	Lys	Ala	Ser	Leu	Cys	Ile	Ser	Thr
			420					425					430		
Lys	Lys	Glu	Val	Glu	Lys	Met	Asn	Lys	Lys	Met	Glu	Glu	Val	Lys	Glu
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Ala	Asn	Ile	Arg	Val	Val	Ser	Glu	Asp	Phe	Leu	Gln	Asp	Val	Ser	Ala
	450					455					460				
Ser	Thr	Lys	Ser	Leu	Gln	Glu	Leu	Phe	Leu	Ala	His	Ile	Leu	Ser	Pro
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Trp	Gly	Ala	Glu	Val	Lys	Ala	Glu	Pro	Val	Glu	Val	Val	Ala	Pro	Arg
				485					490					495	
Gly	Lys	Ser	Gly	Ala	Ala	Leu	Ser	Lys	Lys	Ser	Lys	Gly	Gln	Val	Lys
			500					505					510		
Glu	Glu	Gly	Ile	Asn	Lys	Ser	Glu	Lys	Arg	Met	Lys	Leu	Thr	Leu	Lys
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Val	Leu	Glu	Lys	Gly	Gly	Lys	Val	Phe	Ser	Ala	Thr	Leu	Gly	Leu	Val
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Asp	Ile	Val	Lys	Gly	Thr	Asn	Ser	Tyr	Tyr	Lys	Leu	Gln	Leu	Leu	Glu
				565					570					575	
Asp	Asp	Lys	Glu	Asn	Arg	Tyr	Trp	Ile	Phe	Arg	Ser	Trp	Gly	Arg	Val
			580					585					590		
Gly	Thr	Val	Ile	Gly	Ser	Asn	Lys	Leu	Glu	Gln	Met	Pro	Ser	Lys	Glu
		595					600					605			
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Ile	Lys	Met	Ile	Phe	Asp	Val	Glu	Ser	Met	Lys	Lys	Ala	Met	Val	Glu
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Tyr	Glu	Ile	Asp	Leu	Gln	Lys	Met	Pro	Leu	Gly	Lys	Leu	Ser	Lys	Arg
	690					695					700				
Gln	Ile	Gln	Ala	Ala	Tyr	Ser	Ile	Leu	Ser	Glu	Val	Gln	Gln	Ala	Val
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Ser	Gln	Gly	Ser	Ser	Asp	Ser	Gln	Ile	Leu	Asp	Leu	Ser	Asn	Arg	Phe
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			740					745					750		
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Leu	Asp	Ile	Glu	Val	Ala	Tyr	Ser	Leu	Leu	Arg	Gly	Gly	Ser	Asp	Asp
	770					775					780				
Ser	Ser	Lys	Asp	Pro	Ile	Asp	Val	Asn	Tyr	Glu	Lys	Leu	Lys	Thr	Asp
785					790					795					800
Ile	Lys	Val	Val	Asp	Arg	Asp	Ser	Glu	Glu	Ala	Glu	Ile	Ile	Arg	Lys
				805						810				815	
Tyr	Val	Lys	Asn	Thr	His	Ala	Thr	Thr	His	Asn	Ala	Tyr	Asp	Leu	Glu
			820					825					830		
Val	Ile	Asp	Ile	Phe	Lys	Ile	Glu	Arg	Glu	Gly	Glu	Cys	Gln	Arg	Tyr
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Pro Pro Glu Ala Pro Val Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr
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 Phe Ala Asp Met Val Ser Lys Ser Ala Asn Tyr Cys His Thr Ser Gln
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 Gly Asp Pro Ile Gly Leu Ile Leu Leu Gly Glu Val Ala Leu Gly Asn
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 Met Tyr Glu Leu Lys His Ala Ser His Ile Ser Lys Leu Pro Lys Gly
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 Lys His Ser Val Lys Gly Leu Gly Lys Thr Thr Pro Asp Pro Ser Ala
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